FORCE-MEDIATED RASTORIZATION

ABSTRACT OF THE DISCLOSURE

5   A rendering system models a glyph as a continuous mass, upon which forces act. Each pixel has the ability to exert a force on the glyph. If the pixel is entirely covered by a glyph, it is 'stable', and exerts no force. If the pixel is partially covered by a glyph, it exerts a force on the glyph, in an attempt to move the glyph until the pixel is completely covered. The strength of the force is dependent upon the amount of coverage of the pixel, and the direction of the force is

10   dependent upon the location of the coverage of the pixel. Because all of the partially covered pixels exert a force on the glyph to maximize their coverage by the glyph, the glyph will move in the direction corresponding to a vector sum of the individual forces, until an equilibrium point is reached. Assuming that the amount of partial coverage of a pixel corresponds to the degree of distortion that will be produced when the pixel is rendered, the balancing of the forces of all the

15   pixels on the glyph results in a minimization of this distortion. Additionally, glyphs are modeled to effect a force on adjacent glyphs, based on a preferred spacing between the glyphs.